

CLAIMS

What is claimed is:

1. An optical filter system, comprising
a package;
5 an optical filter installed within the package having at least two thin film mirrors
that define an optical resonant cavity; and
a getter in the package that absorbs moisture to stabilize the optical filter.
2. A tunable optical filter system as claimed in claim 1, wherein the package is a
hermetic package.
- 10 3. A tunable optical filter system as claimed in claim 1, wherein the optical filter is a
tunable filter in which at least one of the thin film mirrors is disposed on a release
structure.
4. A tunable optical filter system as claimed in claim 3, wherein the release structure is
a membrane.
- 15 5. A tunable optical filter system as claimed in claim 1, wherein the getter absorbs
moisture in the package to stabilize a material stress in the thin film mirrors and
thereby stabilize dimensions of the optical resonant cavity.
6. A tunable optical filter system as claimed in claim 1, wherein the thin film mirrors
comprise alternating layers including tantalum pentoxide.
- 20 7. A tunable optical filter system as claimed in claim 1, wherein the thin film mirrors
comprise alternating layers including tantalum pentoxide and silicon dioxide.
8. A process for packaging an optical filter, comprising
installing an optical filter comprising at least two thin film mirrors, which define an
optical resonant cavity, in a package;
25 placing a getter in the package to absorb moisture in the package during operation;

sealing the package with the optical filter and the getter inside.

9. A process as claimed in claim 8, further comprising drying the inside of the package to remove moisture prior to the sealing step.

10. A process as claimed in claim 8, wherein the step of sealing the package comprises sealing a lid onto the package.

11. A process as claimed in claim 8, further comprising applying the getter to the lid prior.

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